AIR LIQUIDE
WELDING

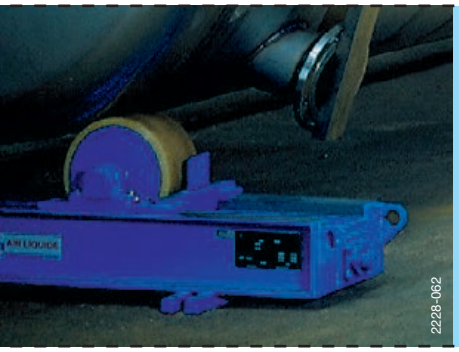
# Positioning equipment




2662-031R

www.airliquidewelding.com

# Air Liquide Welding positioning range




**Since control over the welding process is the key to any system's performance, Air Liquide Welding offer procedural support in addition to their range of positioning euipment.**

Positioning equipment from Air Liquide Welding can be adapted to all welding needs:

- Comfortable for the operator,
- Correct welder position,
- Elimination of fatigue due to manipulations,
- In the automatic mode, it provides the assurance of regular and high-quality welding.

Further, positioning is extremely easy and the work is done faster, more rationally and more safely.



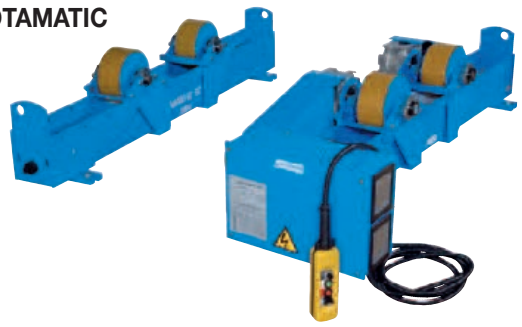






## Air Liquide Welding range of positioning equipment includes:

**ROTAMATIC**



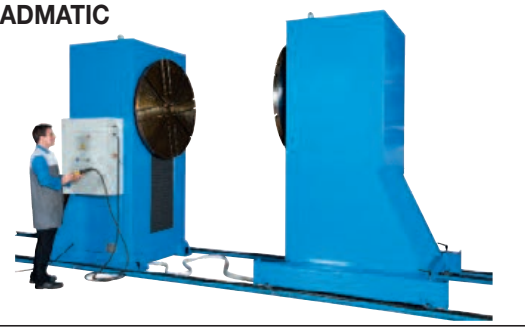

The ROTAMATIC range from 2 tons to 600 tons allows the rotation of vessels for manual or automatic welding.
A large choice of options completes the range.

**POSIMATIC**



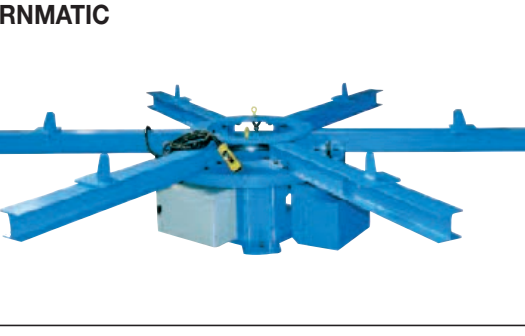

The POSIMATIC range from 100 kg to 30 tons allows the rotation of piece for manual or automatic welding.
The standard POSIMATIC has a rotation and tilting movement.
The TPE Positioner has an additional lifting movement.

**HEADMATIC**




The HEADMATIC range up to 32 tons in standard allows the rotation of piece for manual or automatic welding.
The addition of idler headstock on lorry offers the possibility to manipulate longer piece. The synchronized lifting device allows the operator to work in safety conditions.

**TURNMATIC**




The TURNMATIC range from 5 tons to 30 tons allows the rotation of piece for automatic welding.
The standard range accepts a diameter piece of 1000 to 4500 mm.

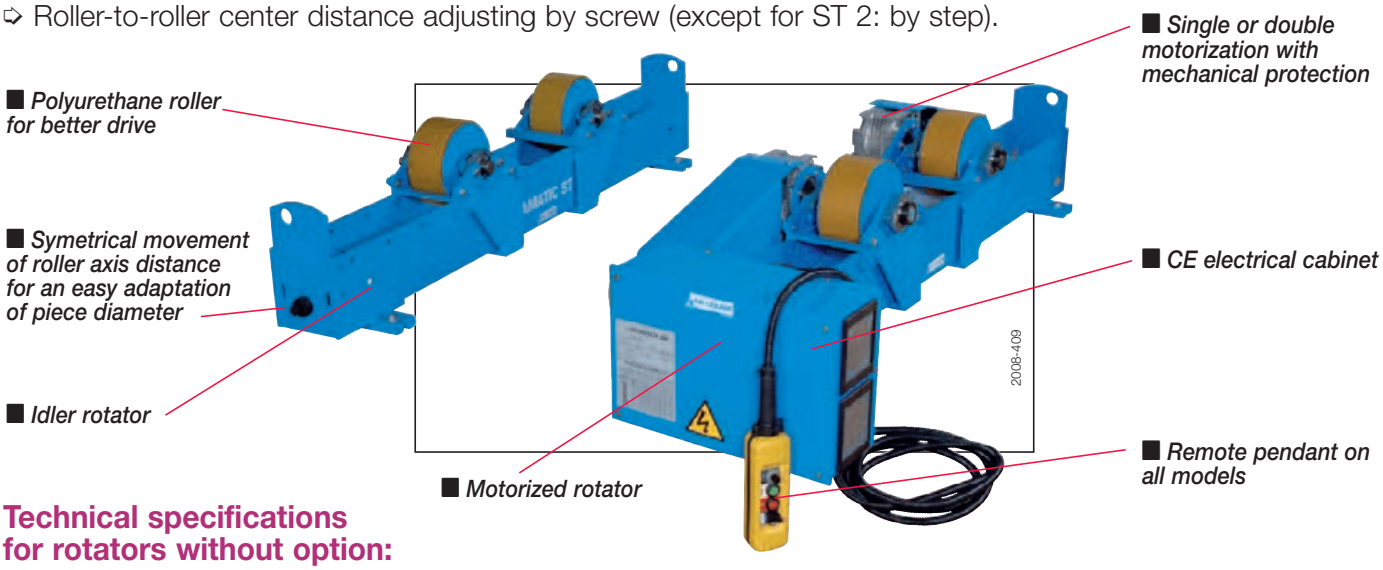
# ROTAMATIC ST




**Easy-to use line of rotators covering a load carrying range from 2 tons up to 600 tons (Drive unit + Idler unit).**

## Medium-duty rotator: 2 T to 30 T

- Single powered (one drive roller) for small unbalance work piece.
- Double powered (two drive rollers) for work pieces having significant unbalance.
- Roller-to-roller center distance adjusting by screw (except for ST 2: by step).

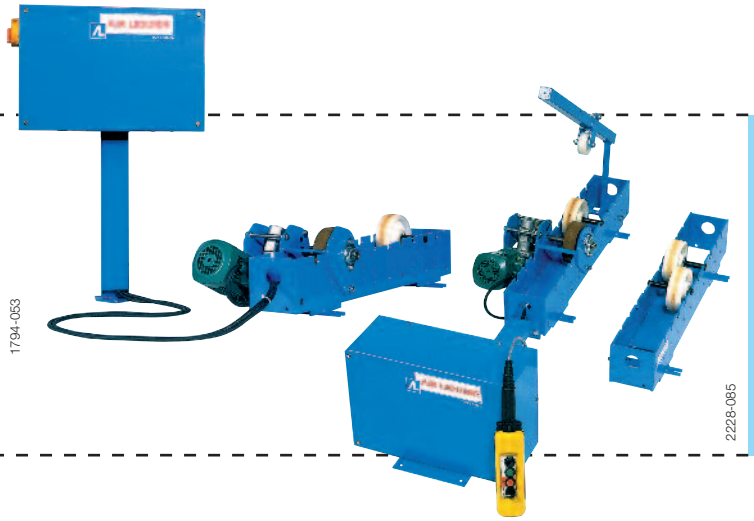



## Technical specifications for rotators without option:

| Designation | | Cat. no. | Load capacity (1 drive + 1 idler) kg | Load capacity per section kg | Shell diameter mm | Peripherical speed cm/min | Wheel dimension OD x width | Wheel material |
|---|---|---|---|---|---|---|---|---|
| ST 2 | MT | W000315290 | 2000 | 1000 | 30 to 2500 | 12 to 120 | Ø 150 x 50 | Polyurethane |
| | M | W000315289 | | | | | | |
| | W | W000315288 | | | | | | |
| | F | W000315291 | | | | | | Polyamide |
| ST 6 | M | W000315297 | 6000 | 3000 | 300 to 3500 | 12 to 120 | Ø 250 x 75 | Polyurethane |
| | W | W000315296 | | | | | | |
| | F | W000315298 | | | | | | |
| ST 15 | M | W000315304 | 15000 | 7500 | 300 to 4000 | 12 to 120 | Ø 250 x 110 | Polyurethane |
| | W | W000315303 | | | | | | |
| | F | W000315305 | | | | | | |
| ST 30 | W | W000315309 | 30000 | 15000 | 350 to 4500 | 12 to 120 | Ø 350 x 150 | Polyurethane |
| | F | W000315310 | | | | | | |

## Keys:

M = Single motorization
W = Double motorization
F = Idler roll
MT = Single motorization with tube system




**With the options Kit auto, Kit display, Kit regulation and Kit encoder, you can have a complete set of rotators according your needs. Don't forget the possible options: lorry and antidrift system (see page 9).**

**Possibility to connect a pedal: W000273453. The option kit auto is required.**

## References of motorized rotators with options:

- Kit auto (A): Synchronization with the welding unit (ON / OFF)
- Kit Display (D): Digital speed display on electrical cabinet
- Kit Regulation (R): Rotation speed regulation ± 1% (Plasma or TIG regulation)
- Kit encoder (C): Encoder 5000 points mounted on motor roller

| Type | Options | | | | Designation | Cat. no. |
|---|---|---|---|---|---|---|
| | Kit auto | Kit display | Kit regulation | Kit encoder | | |
| 2T M | X | | | | ROTAMATIC ST 2M A | W000272451 |
| | X | X | | | ROTAMATIC ST 2M AD | W000272452 |
| | X | X | X | | ROTAMATIC ST 2M ADR | W000272453 |
| | X | X | X | X | ROTAMATIC ST 2M ADRC | W000272454 |
| 2T MT | X | | | | ROTAMATIC ST 2MT A | W000272455 |
| | X | X | | | ROTAMATIC ST 2MT AD | W000272456 |
| | X | X | X | | ROTAMATIC ST 2MT ADR | W000272457 |
| | X | X | X | X | ROTAMATIC ST 2MT ADRC | W000272458 |
| 2T W | X | | | | ROTAMATIC ST 2W A | W000272459 |
| | X | X | | | ROTAMATIC ST 2W AD | W000272460 |
| | X | X | X | | ROTAMATIC ST 2W ADR | W000272461 |
| | X | X | X | X | ROTAMATIC ST 2W ADRC | W000272462 |
| 6T M | X | | | | ROTAMATIC ST 6M A | W000272463 |
| | X | X | | | ROTAMATIC ST 6M AD | W000272464 |
| | X | X | X | | ROTAMATIC ST 6M ADR | W000272465 |
| | X | X | X | X | ROTAMATIC ST 6M ADRC | W000272466 |
| 6T W | X | | | | ROTAMATIC ST 6W A | W000272467 |
| | X | X | | | ROTAMATIC ST 6W AD | W000272468 |
| | X | X | X | | ROTAMATIC ST 6W ADR | W000272469 |
| | X | X | X | X | ROTAMATIC ST 6W ADRC | W000272470 |
| 15T M | X | | | | ROTAMATIC ST 15M A | W000272471 |
| | X | X | | | ROTAMATIC ST 15M AD | W000272472 |
| | X | X | X | | ROTAMATIC ST 15M ADR | W000272473 |
| | X | X | X | X | ROTAMATIC ST 15M ADRC | W000272474 |
| 15T W | X | | | | ROTAMATIC ST 15W A | W000272475 |
| | X | X | | | ROTAMATIC ST 15W AD | W000272476 |
| | X | X | X | | ROTAMATIC ST 15W ADR | W000272477 |
| | X | X | X | X | ROTAMATIC ST 15W ADRC | W000272478 |
| 30T W | X | | | | ROTAMATIC ST 30W A | W000272479 |
| | X | X | | | ROTAMATIC ST 30W AD | W000272480 |
| | X | X | X | | ROTAMATIC ST 30W ADR | W000272481 |
| | X | X | X | X | ROTAMATIC ST 30W ADRC | W000272482 |

# ROTAMATIC LP



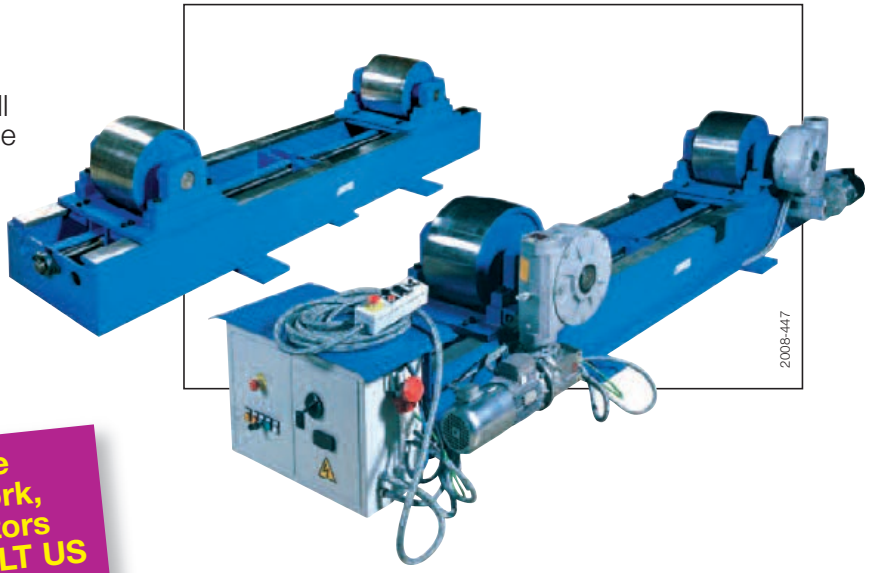




## Heavy-duty rotator: 42 T to 600 T

In standards, up to 200 tons:

- Special frame conception with built-in roll supports reduces welding height from the ground.
- Machined bed on the idler and drive roll for perfect alignment.
- Remote pendant, kit auto and display in standard on all versions.
- Possible options:
  - lorry and railway (see page 9)
  - screw adjusting or step adjusting



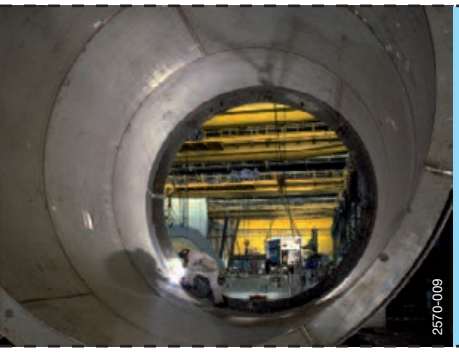

**With our experience in the heavy boilerwork, we can propose rotators up to 600 tons: CONSULT US**

## Technical specifications:

| Designation | Load capacity (1 drive + 1 idler) kg | Load capacity per section kg | Shell diameter mm | Peripherical speed cm/min | Wheel dimension OD x width | Wheel material |
|---|---|---|---|---|---|---|
| **LP42*** | 42000 | 21000 | 700 to 5000 | 10 to 100 or 9 to 180 | Ø 400 x 200 | Steel |
| | | | | | Ø 400 x 250 | Polyurethane |
| **LP55*** | 55000 | 27500 | 700 to 5000 | 10 to 100 or 9 to 180 | Ø 400 x 250 | Steel |
| | | | | | Ø 400 x 300 | Polyurethane |
| **LP70*** | 70000 | 35000 | 900 to 6000 | 10 to 100 or 8 to 160 | Ø 460 x 250 | Steel |
| | | | | | Ø 460 x 300 | Polyurethane |
| **LP100*** | 100000 | 50000 | 900 to 6000 | 10 to 100 or 8 to 160 | Ø 450 x 250 | Steel |
| | | | | | Ø 460 x 300 | Polyurethane |
| **LP160*** | 160000 | 80000 | 1200 to 6000 | 10 to 100 or 9 to 160 | Ø 450 x 300 | Steel |
| **LP200*** | 200000 | 100000 | 1200 to 6000 | 10 to 100 or 10 to 160 | Ø 500 x 300 | Steel |

***** Available in version **W** (Double motorization) or **F** (Idler roll)

# ROTAMATIC: fit-up rotator

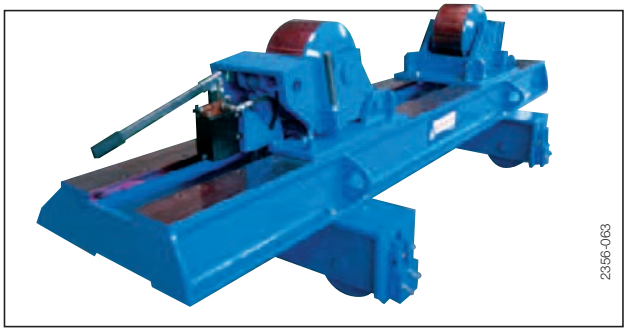



**The fit-up rotator allows to manipulate the vessels without any other exterior elements (crane...).**
**Up to 200 tons, with 1 set of single roller rotators (idler + motorized) and 2 fit-up rotators, the operators can easily adjust the vessels in order to make a good adjustment of the shells.**

## Fit-up rotator: 30 T to 200 T

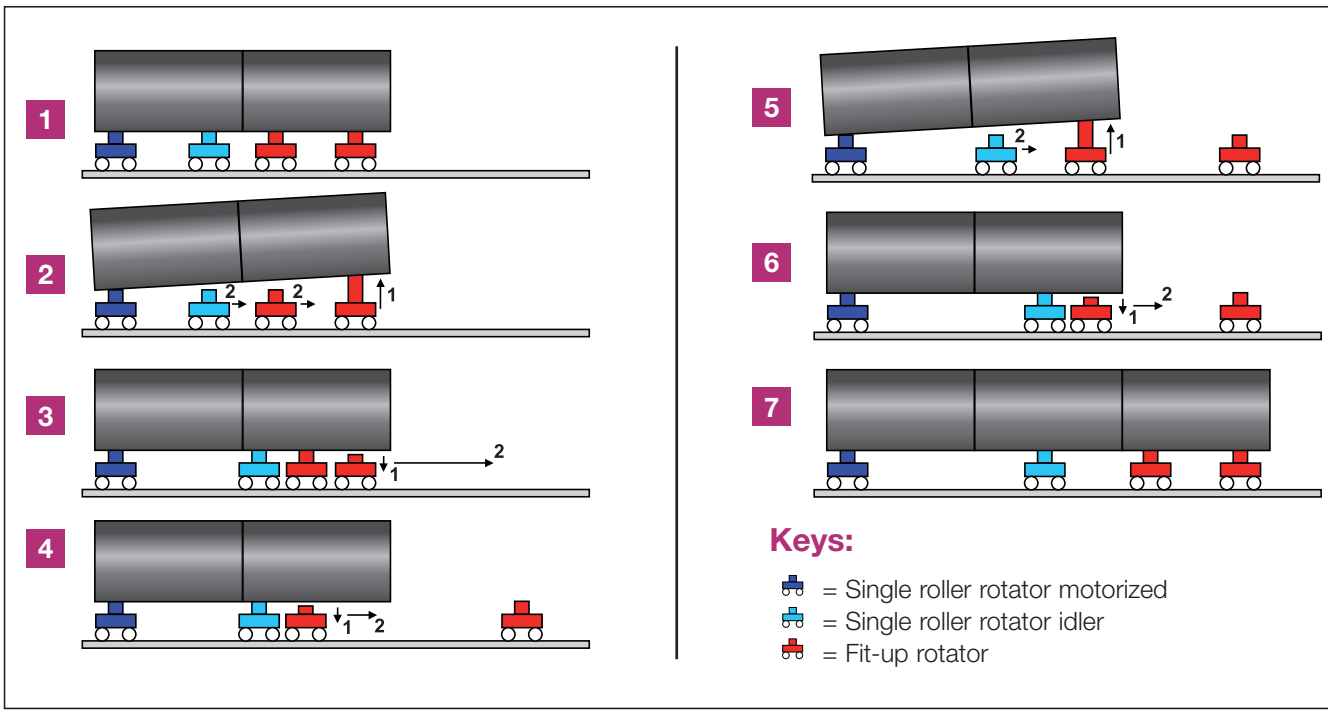
- In standard, the up and down movement is made by a manual hydraulic pump.
- Possible options:
  - automatic hydraulic pump (hydraulic central)
  - lorry and railway (see page 9)

**For a higher capacity rotators: consult us.**




### Technical specifications:

| Designation | Load capacity (2 fit-up) kg | Lifting capacity per section kg | Shell diameter mm | Wheel dimension OD x width | Wheel material | Wheels adjustment |
|---|---|---|---|---|---|---|
| **TR30** | 30000 | 15000 | 700 to 4500 | Ø 300 x 160 | Polyurethane | Screw |
| **TR42** | 42000 | 21000 | 700 to 5000 | Ø 350 x 250 | Polyurethane | Screw |
| **TR55** | 55000 | 27500 | 700 to 5000 | Ø 350 x 250 | Polyurethane | Screw |
| **TR70** | 70000 | 35000 | 900 to 6000 | Ø 400 x 300 | Polyurethane | Screw |
| **TR100** | 100000 | 50000 | 900 to 6000 | Ø 400 x 250 | Steel | Step |
| **TR160** | 160000 | 80000 | 1200 to 6000 | Ø 450 x 250 | Steel | Step |
| **TR200** | 200000 | 100000 | 1200 to 6000 | Ø 45 0 x 300 | Steel | Step |



# ROTAMATIC: self-aligning rotator

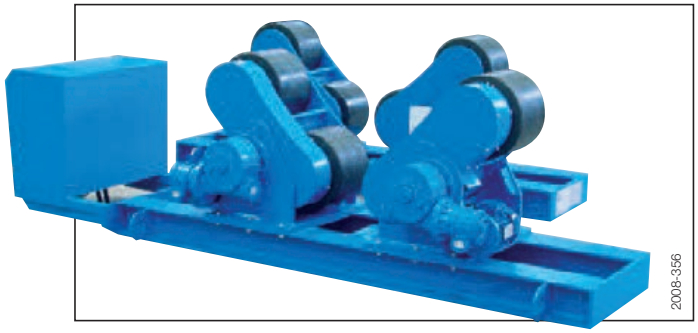



**The self-aligning rotator range, up to 250 tons (drive unit + idler unit), allows the easy positioning of pieces.**
**The rollers tilting allows to align the piece with the rotator without pre-adjusting of the rollers.**

## Self-aligning rotator: 12 T to 250 T

- In standard: remote control, kit auto and display on all versions.
- Possible options:
  - lorry and railway (see page 9)

**For a higher capacity rotators: consult us.**

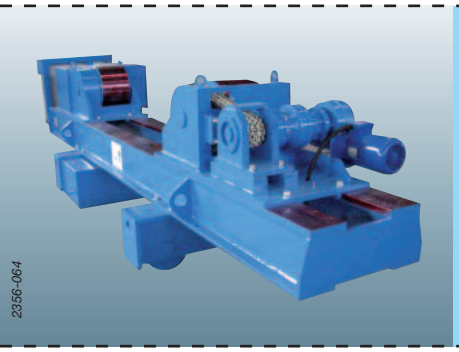



### Technical specifications:

| Designation | Load capacity (1 drive + 1 idler) kg | Load capacity per section kg | Shell diameter for 1/2 load mm | Shell diameter for maximum load mm | Peripherical speed cm/min | Wheel dimension OD x width | Wheel material |
|---|---|---|---|---|---|---|---|
| **LP12-2R*** | 12000 | 6000 | 500 to 1500 | 1500 to 4000 | 10 to 100 or 10 to 200 | Ø 300 x 220 | Rubber |
| **LP20-2R*** | 20000 | 10000 | 500 to 1500 | 1500 to 4000 | 10 to 100 or 10 to 200 | Ø 350 x 300 | Rubber |
| **LP30-2R*** | 30000 | 15000 | 500 to 1500 | 1500 to 4500 | 10 to 100 or 8 to 160 | Ø 400 x 300 | Rubber |
| **LP42-2R*** | 42000 | 21000 | 500 to 1500 | 1500 to 5000 | 10 to 100 or 9 to 180 | Ø 400 x 400 | Rubber |
| **LP55-2R*** | 55000 | 27500 | 800 to 1800 | 1800 to 5000 | 10 to 100 or 9 to 180 | Ø 500 x 230 | Rubber |
| **LP70-2R*** | 70000 | 35000 | 800 to 1800 | 1800 to 6000 | 10 to 100 or 9 to 180 | Ø 500 x 400 | Rubber |
| **LP100-2R*** | 100000 | 50000 | 600 to 1500 | 1500 to 6000 | 10 to 100 or 8 to 160 | Ø 420 x 300 | Polyurethane |
| **LP160-2R*** | 160000 | 80000 | 1000 to 1500 | 1500 to 6000 | 10 to 100 or 8 to 160 | Ø 460 x 300 | Polyurethane |
| **LP200-2R*** | 200000 | 100000 | 1000 to 1500 | 1500 to 7000 | 10 to 100 or 7.5 to 150 | Ø 500 x 300 | Steel |
| | | | | | | Ø 500 x 300 | Polyurethane |
| **LP250-2R*** | 250000 | 125000 | 1000 to 1500 | 1500 to 7000 | 10 to 100 or 7.5 to 150 | Ø 500 x 300 | Steel |
| | | | | | | Ø 550 x 400 | Polyurethane |

***** Available in version **W** (double motorization) or **F** (idler roll)

# ROTAMATIC options




**Options are available to make easy the manipulation of pieces with rotators.**

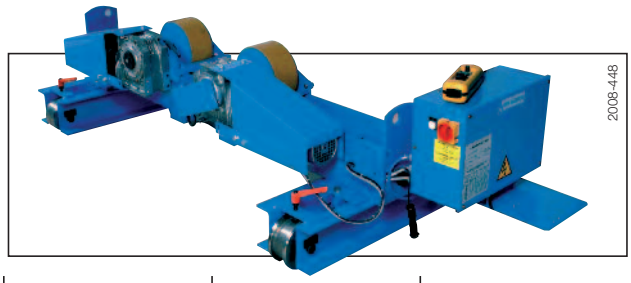
## Lorry

The lorry allows to move the rotators with or without the piece.

The idler lorry and the motorized lorry can be mounted on same rail.

Rail 6 m long: W000315250

Rail 3 m long: W000315251.



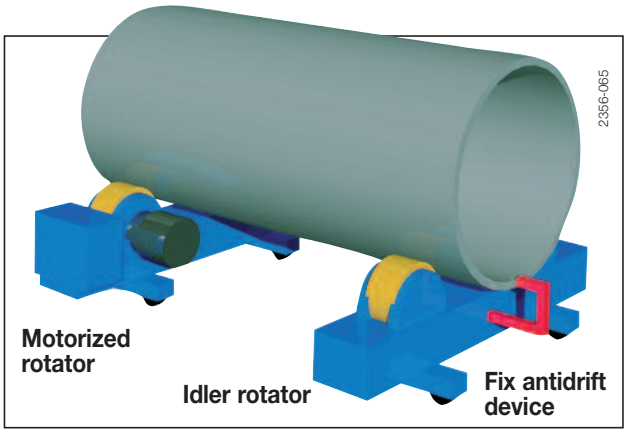

| For Rotators | Idler lorry | Motorized lorry | Translation speed m/min |
|---|---|---|---|
| **ST6 / ST15 / ST30** | W000272574 | - | - |
| **LP12-2R / LP20-2R / LP30-2R / TR30** | LFC 30 | - | - |
| **LP42 / LP55 / LP42-2R / LP55-2R / TR42 / TR55** | LFC 55 | LMC 55 | 1,5 |
| **LP70 / LP100 / LP70-2R / LP100-2R / TR70 / TR100** | LFC 100 | LMC 100 | 1,4 |
| **LP160 / LP200 / LP160-2R / LP200-2R / TR160 / TR200** | LFC 200 | LMC 200 | 1,2 |
| **LP250-2R** | LFC 250 | LMC 250 | 1,2 |

## Antidrift system

The manual antidrift device allows the piece to turn without twisting.

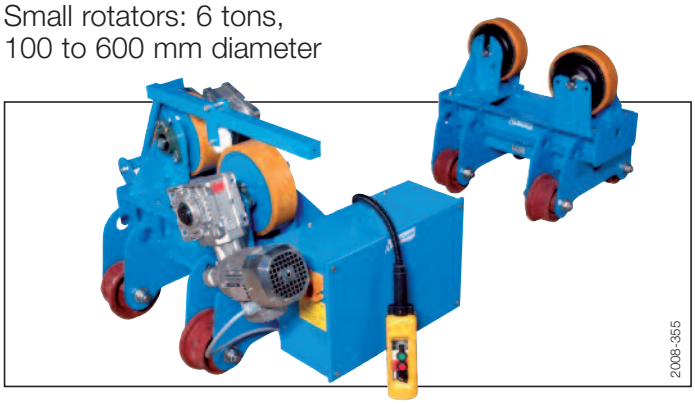
This system is fixed on the idler rotator.

| For rotators | Manual Antidrift Device |
|---|---|
| **LP12-2R / LP20-2R / LP30-2R / TR30** | MAD 30 |
| **LP42 / LP55 / LP42-2R / LP55-2R / TR42 / TR55** | MAD 55 |
| **LP70 / LP100 / LP70-2R / LP100-2R / TR70 / TR100** | MAD 100 |
| **LP160 / LP200 / LP160-2R / LP200-2R / TR160 / TR200** | MAD 200 |
| **LP250-2R** | MAD 250 |

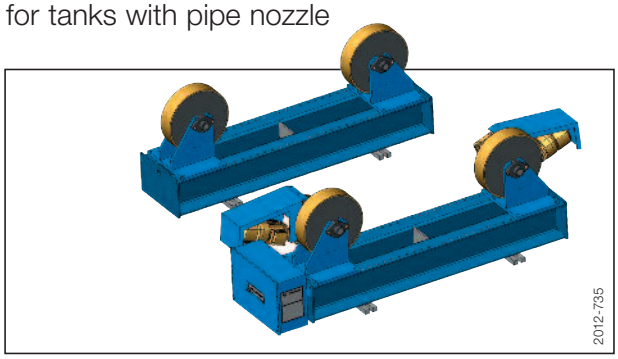



## Special rotators

Small rotators: 6 tons,
100 to 600 mm diameter




Special rotators with large diameter of rollers for tanks with pipe nozzle



# Positioners: POSIMATIC

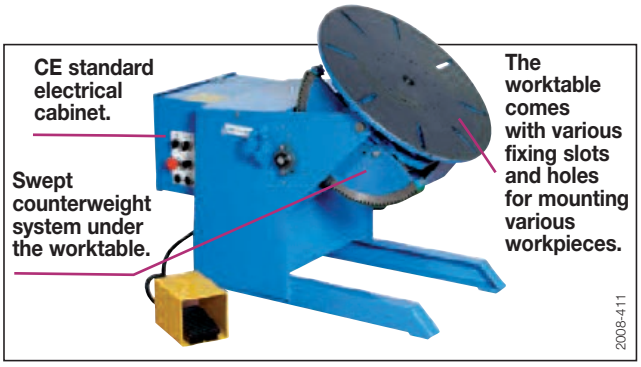



**Air Liquide Welding offers a range of positioners tables of varying capacities. These devices therefore provide significant improvements in productivity, operator ergonomics and quality standards, both for manual work and for medium series production.**

**2 types of positioners are available:**

- conventional: from 100 kg to 30 T
- with lifting table: from 1500 kg to 10 T

**For higher capacity or different rotation speed range, please consult us.**



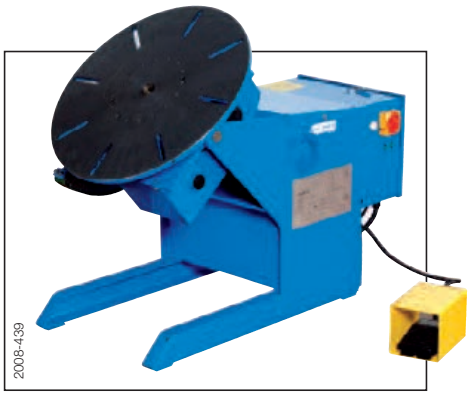

## Conventional: from 100 kg to 3 tons




**POSIMATIC P1E:**
100 kg at 175 mm from the plate



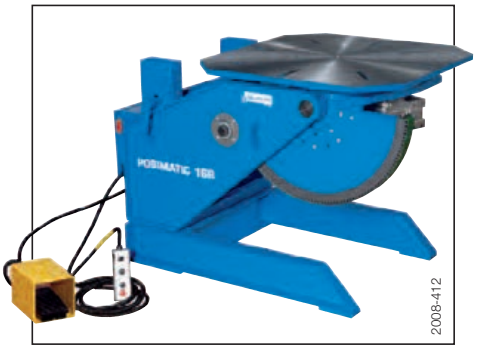

**POSIMATIC P2E:**
200 kg at 130 mm from the plate



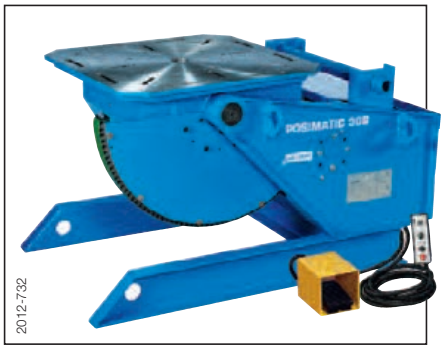

**POSIMATIC 3F:**
300 kg at 230 mm from the plate



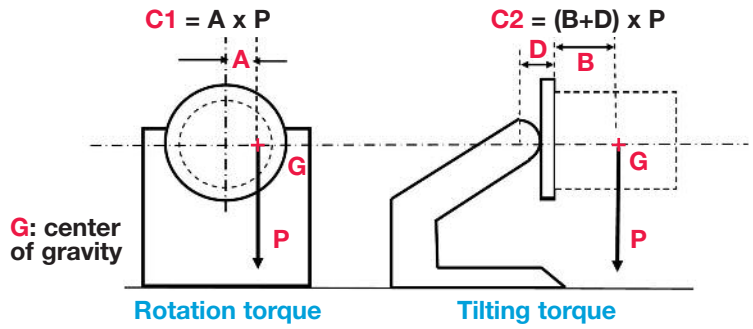

**POSIMATIC 7F:**
650 kg at 175 mm from the plate




**POSIMATIC 16B:**
1600 kg at 120 mm from the plate

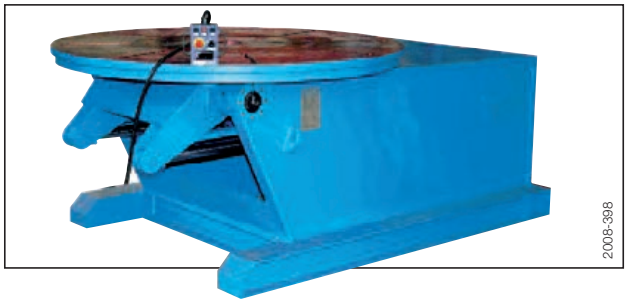



**POSIMATIC 30B:**
3000 kg at 140 mm from the plate




**For higher capacity or different rotation speed range, please consult us.**

## Conventional: TP range from 4 T to 30 T




## With lifting: TPE range from 1.5 T to 10 T




| | Cat. no. | Load all positions kg | Tilt torque m.kg (C1) | Rotation torque m.kg (C2) | Rotation speed tr/min | Turntable height mm | Remote control or pedal | Plate dimension | Axis-plate distance mm (D) |
|---|---|---|---|---|---|---|---|---|---|
| **P1E** | W000315254 | 100 | 25 | 2 | 0.2 to 5 | 385 | Pedal | Ø 300 | 75 |
| **P2E** | W000315256 | 200 | 40 | 4 | 0.25 to 5 | 500 | Pedal | Ø 400 | 70 |
| **3F** | W000315255 | 400 | 90 | 20 | 0.14 to 2.2 | 650 | Pedal | Ø 600 | 70 |
| **7F** | W000315257 | 650 | 175 | 75 | 0.076 to 1.53 | 896 | RC+ pedal | Ø 800 | 95 |
| **16B** | W000315258 | 1600 | 400 | 150 | 0.074 to 1.48 | 975 to 1400 | RC+ pedal | Ø 980 | 130 |
| **30B** | W000315259 | 3000 | 840 | 250 | 0.06 to 1.18 | 980 to 1380 | RC+ pedal | Ø 1000 | 140 |
| **TP4** | Consult us | 4000 | 1100 | 500 | 0.045 to 0.45 | 1110 | RC | Ø 1600 | 160 |
| **TP6** | Consult us | 6000 | 2500 | 720 | 0.03 to 0.3 | 1150 | RC | Ø 1800 | 175 |
| **TP8** | Consult us | 8000 | 3600 | 850 | 0.025 to 0.25 | 1000 | RC | Ø 1800 | 175 |
| **TP10** | Consult us | 10000 | 6750 | 1450 | 0.022 to 0.22 | 1190 | RC | Ø 2000 | 200 |
| **TP15** | Consult us | 15000 | 10300 | 2100 | 0.02 to 0.2 | 1275 | RC | Ø 2250 | 240 |
| **TP20** | Consult us | 20000 | 14200 | 2900 | 0.018 to 0.18 | 1340 | RC | Ø 2500 | 270 |
| **TP30** | Consult us | 30000 | 22500 | 4400 | 0.015 to 0.15 | 1450 | RC | Ø 2750 | 300 |
| **TPE 1.5** | Consult us | 1500 | 375 | 160 | 0.06 to 0.6 | 970 to 1700 | RC | Ø 1000 | 120 |
| **TPE 2.5** | Consult us | 2500 | 600 | 200 | 0.06 to 0.6 | 1030 to 1850 | RC | Ø 1200 | 140 |
| **TPE 4** | Consult us | 4000 | 1100 | 500 | 0.045 to 0.45 | 1060 to 2010 | RC | Ø 1600 | 160 |
| **TPE 6** | Consult us | 6000 | 2500 | 720 | 0.035 to 0.35 | 1125 to 2125 | RC | Ø 1800 | 175 |
| **TPE 8** | Consult us | 8000 | 3600 | 850 | 0.025 to 0.25 | 1125 to 2125 | RC | Ø 1800 | 175 |
| **TPE 10** | Consult us | 10000 | 6750 | 1450 | 0.022 to 0.22 | 1150 to 2350 | RC | Ø 2000 | 200 |

# Turn-tables: TURNMATIC

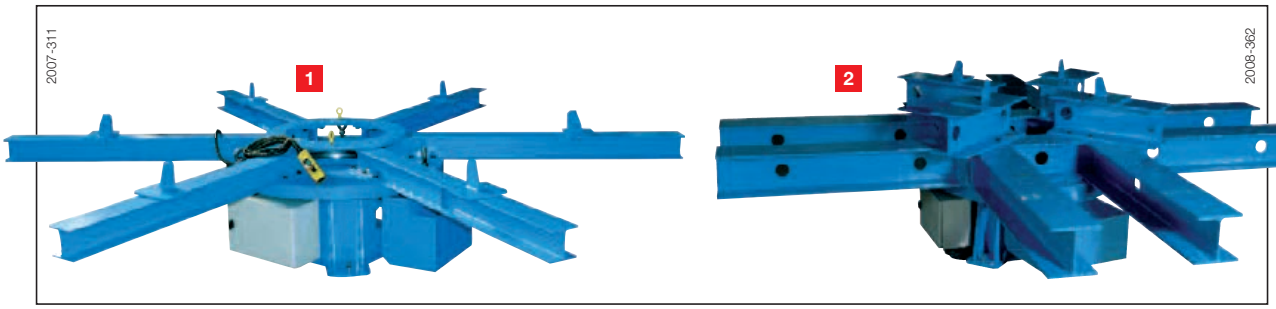



**Air Liquide Welding proposes a range of turn-table up to 30 tons. A backing gas device can complete a welding solution with column and boom and plasma welding.**

## Turntable 5 T to 30 T

Circular welding can be performed by the movement of the turn table without moving the torch. In the standard range, a turn table can make the rotation of shells up to 30 tons and up to 4500 mm diameter.

**For other sizes, capacities or rotation speed range: consult us.**

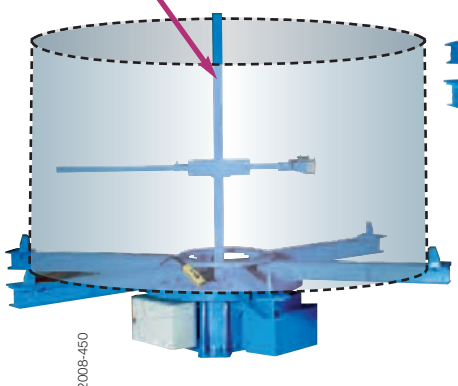


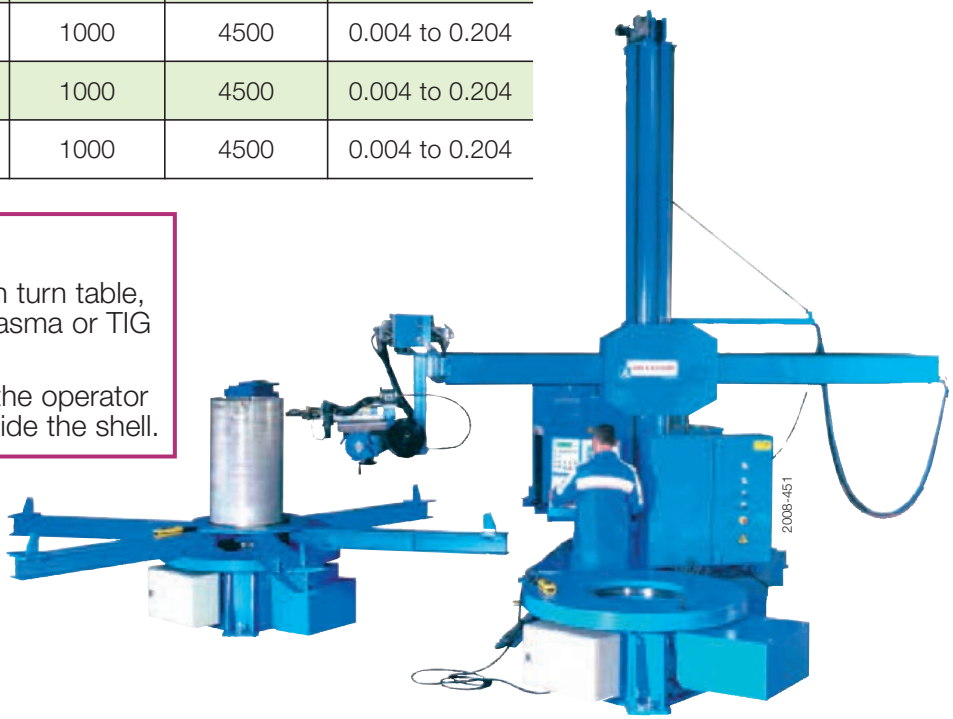

| | Designation | Load capacity kg | Mini shell diameter mm | Maxi shell diameter mm | Rotation speed tr/min |
|---|---|---|---|---|---|
| 1 | **TURNMATIC 5 T** | 5000 | 1200 | 4500 | 0.004 to 0.204 |
| | **TURNMATIC 10 T** | 10000 | 1000 | 4500 | 0.004 to 0.204 |
| 2 | **TURNMATIC 20 T** | 20000 | 1000 | 4500 | 0.004 to 0.204 |
| | **TURNMATIC 30 T** | 30000 | 1000 | 4500 | 0.004 to 0.204 |

## Backing gas device:

The backing gas device mounted on turn table, complete the turn-key solution of plasma or TIG welding column and boom.

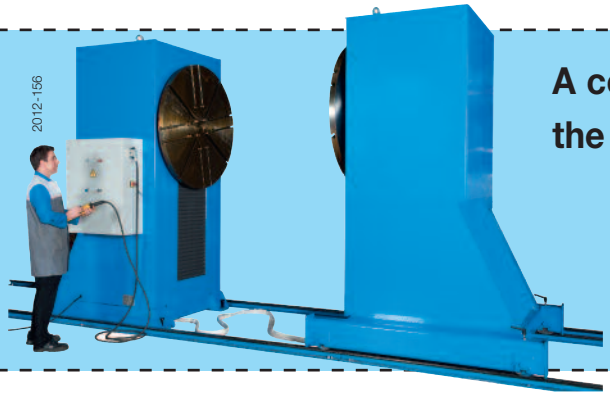
A man hole in the turn table allows the operator to adjust the backing gas device inside the shell.




**For other sizes, capacities or rotation speed range: consult us.**

# Headstock: HEADMATIC




**A complete range of headstock allows the rotation piece in horizontal position.**

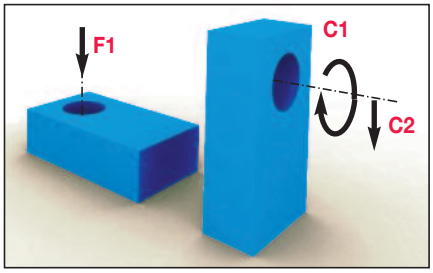
## Headstock

The headstock range allows the rotation of pieces up to 32 tons.

3 types of headstock:

- **MINITOP, TOP and SUPERTOP II** to be integrated on a mechanization.




| Designation | Motorized Cat. no. | Idler Cat. no. | Flat Load capacity (F1) kg | Rotation torque (C1) m.kg | Tilting torque (C2) m.kg | Rotation speed tr/min |
|---|---|---|---|---|---|---|
| **MINITOP 26.8 tr** | W000315429 | W000315426 | 50 | 3.6 | 14 | 2.7 to 26.8 |
| **MINITOP 8.25 tr** | W000315427 | | 50 | 9.4 | 14 | 0.82 to 8.25 |
| **MINITOP 3.75 tr** | W000315425 | | 50 | 16 | 14 | 0.37 to 3.75 |
| **TOP** | W000315371 | W000315367 | 300 | 15 | 90 | 0.05 to 4.5 |
| **SUPERTOP II** | W000276829 | W000315402 | 1000 | 60 | 300 | 0.05 to 5 |

- **HL range** with synchronized lifting movement for manual manipulation or integrated on machine.
  The HL machine is composed of
  - HLM : motorized headstock
  - HLF : idler headstock

| Designation | Load capacity kg | Rotation torque (C1) m.kg | Rotation speed tr/min |
|---|---|---|---|
| **HLM+F 2x1.5** | 3000 | 250 | 0.1 à 1 |
| **HLM+F 2x4** | 8000 | 500 | 0.1 à 1 |
| **HLM+F 2x6** | 12000 | 720 | 0.1 à 1 |
| **HLM+F 2x8** | 16000 | 960 | 0.1 à 1 |
| **HLM+F 2x10** | 20000 | 1200 | 0.1 à 1 |
| **HLM+F 2x16** | 32000 | 1900 | 0.1 à 1 |




We can propose the HLM without the idler headstock and the load capacity is half of the above value.

- **Special HEADMATIC 3 axes : HL3A**
  Possibility to propose HEADMATIC 3 axes up to 20 Tons.



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